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The impact of a culturally tailored telehealth education programme on glycemic control and self-care behaviours in Jordanian adults with type 2 diabetes

Submission date
06/02/2026

Recruitment status
No longer recruiting

Registration date
09/02/2026

Overall study status
Completed

Last Edited
09/02/2026

Condition category
Nutritional, Metabolic, Endocrine

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[ ] Results
[ ] Individual participant data
[X] Record updated in last year

Plain English summary of protocol
Plain English summary of protocol not provided at time of registration

Contact information

Type(s)
Public, Scientific, Principal investigator

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Study information

Scientific Title
The impact of a culturally tailored telehealth education programme on glycemic control and self-care behaviours in Jordanian adults with type 2 diabetes: a randomised controlled trial

Study objectives
The present study aimed to assess the impact of a culturally tailored telehealth education programme on glycemic control and self-care behaviours among Jordanian adults with T2DM. We hypothesised that participants in the intervention group would demonstrate a greater reduction in HbA1c and greater improvements in self-care behaviours, diabetes knowledge, medication adherence, and diabetes fatalism, and report high satisfaction with the intervention, in comparison to individuals receiving usual care.

Ethics approval required
Ethics approval required

Ethics approval(s)
approved 11/11/2024, University of Petra (17 Queen Alia Airport Rd, Amman, 11196, Jordan; +962; uopec@uop.edu.jo), ref: S/12/12/2024

Primary study design
Interventional

Allocation
Randomized controlled trial

Masking
Blinded (masking used)

Control
Active

Assignment
Parallel

Purpose
Supportive care

Study type(s)

Health condition(s) or problem(s) studied
The impact of a culturally tailored telehealth education programme on glycemic control and self-care behaviours among Jordanian adults with T2DM.

Interventions
Following written informed consent, participants were randomized in a 1:1 ratio to either the intervention or control group. A computer-generated block randomization sequence, stratified by clinic site, was used to ensure balanced treatment allocation. Allocation was concealed from the recruitment team using a closed opaque envelope system with trailing individually numbered envelopes. Due to the behavioral aspects of the treatment, participant and diabetes educator blinding was not possible, but the outcome assessors and data analyst were blinded.

The intervention involved a six-month comprehensive intervention based on Social Cognitive Theory principles, to enhance self-efficacy through education and goal setting. The cultural

adaptation of the intervention was conducted through multiple phases. The panel consisted of a certified Diabetes Educator, a dietitian, and patient representatives who collaborated with regard to developing patient education.

Intervention Group: The intervention group received the culturally adapted tele-health intervention programme conducted completely in Arabic. The programme was designed to be low-burden and flexible, consisting of:
• WhatsApp Broadcasts: The content covered core DSME topics (e.g., diet, exercise, medication management, self-monitoring, and problem-solving).
• Individual Teleconsultations: Each participant had three scheduled 15-minute phone calls with a certified diabetes educator (at the study's start, and at 3 and 6 months).

Control Group
Participants in the control group continued to receive standard care (usual care) from their endocrinologists and the clinic staff at the participating hospital in Amman, Jordan.
• Procedures: This standard care typically included routine outpatient clinic visits scheduled every 3 to 6 months. During these visits, they received standard medical management and advice as per routine clinical practice.
• Exclusion: Participants in the control group were not exposed to any components of the telehealth programme (WhatsApp broadcasts or telephonic coaching) provided to the intervention group.

Intervention Type
Other

Primary outcome(s)
1. glycemic control and self-care behaviours measured using % at HbA1c

Key secondary outcome(s))

Completion date
31/07/2025

Eligibility

Key inclusion criteria
1. Adults aged 18 years or older
2. A clinical diagnosis of Type 2 Diabetes Mellitus (T2DM) for at least one year
3. A baseline HbA1c between 7.5% and 11.0%
4. Ownership of a smartphone with the WhatsApp application
5. The ability to read Arabic

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
18 years

Upper age limit
100 years

Sex
All

Total final enrolment
92

Key exclusion criteria
1. Type 1 diabetes
2. Pregnancy or lactation
3. Severe diabetes-related complications (e.g., end-stage renal disease)
4. A cognitive impairment that would preclude meaningful participation

Date of first enrolment
01/01/2025

Date of final enrolment
31/01/2025

Locations

Countries of recruitment
Jordan

Sponsor information

Organisation
Petra University

ROR
https://ror.org/039d9es10

Funder(s)

Funder type

Funder Name
Investigator initiated and funded

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not expected to be made available